

# Aero Design Ltd.

## Work Order Control Sheet

Work Order#: 2017-178 Date Opened: 03 November 2017 Title: Fabrication

Aircraft OEM: Eurocopter Aircraft Model: AS350/355 Product Type: Cargo Basket & Lid Product Model: XL Quantity: 5/5

10/10 JC

### Work Order Contents

Work Order/Build Sheets (Procedures Provided)  
Additional Work Sheets (Standard Practice)  
Drawings (See List Below)  
Parts Distribution Sheet  
Sub Component Tags  
Completed Certification  
Time Sheet (R&D)  
Notes

Initial or N/A

JC
N/A
JC
JC
N/A
JC
N/A
N/A

### Build Sheet Contents

Tasks Initialled  
Dual Inspections Initialled

Initial or N/A

JC
JC

### Drawing List

Drawing #	Rev #	Description	Initial or N/A
94011	1	Body	JC
94012	1	Lid	JC
70405	4	Lid Walkway	JC
84262	2	Basket Handle Prov.	JC
84263	0	Lid Handle Provisions	JC

### Component Completion

Quantity Complete on This Work Order  
Quantity Incomplete on This Work Order  
Further Processing Required Before Release  
Release to Stock as Components

As Instructed

10/10
0
N/A
N/A

### Certification

Form One Completed  
Serviceable (Green) Tag Completed  
In Process (Yellow) Tag Completed  
Unserviceable (Red) Tag Completed  
Parts Tracking (White) Tag Completed  
Parts Placed in Stores for Distribution

Initial or N/A

N/A
N/A
JC
N/A
N/A
JC

### Additional Documentation

Documentation of a minor change  
Non-Conformance Report Required  
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

### Billing

Local (Aero Design)  
Research and Development  
Third Party

Initial or N/A

JC
N/A
N/A

### Traveller

Initial or N/A


Work performed by:

Print: J. FRANCIS / J. REKVE

ICC / Dual Inspection performed by:

Print: J. CLARKE

Work Order closed by:

Print: J. CLARKE

Approved Manufacturing Facility 73-04

Sign: [Signature]

Sign: [Signature]

Sign: [Signature]

Form 20.D.03

SCA: A001

SCA: A002

SCA: A002

Date: 24 JAN 2018

Date: 29 JAN 2018

Date: 14 MAR 2018

Rev. Original 23 Sep 2014



## Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: SPACER (L10) No. of pieces: 68

Manufacturer: AERO DESIGN LTD.

Part No.: 49216-01 Serial/Batch No.: 14092 / 15039

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-84

Remaining Tasks to be Performed: NONE

Signature: JH Celh.

Date: 29 MAY 2017 Lic. No. / SCA A002

Serviceable



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AMF 73-04

Serviceable

### Remarks

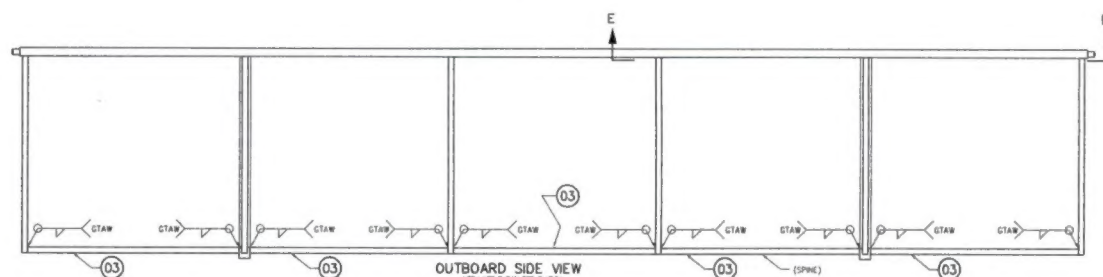
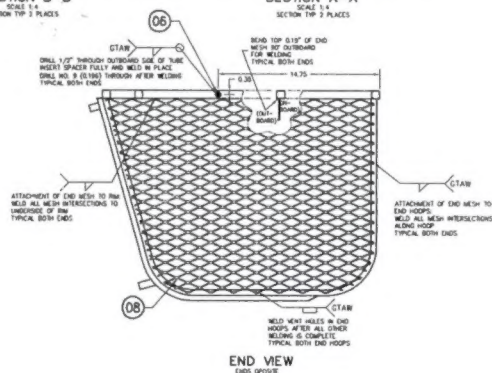
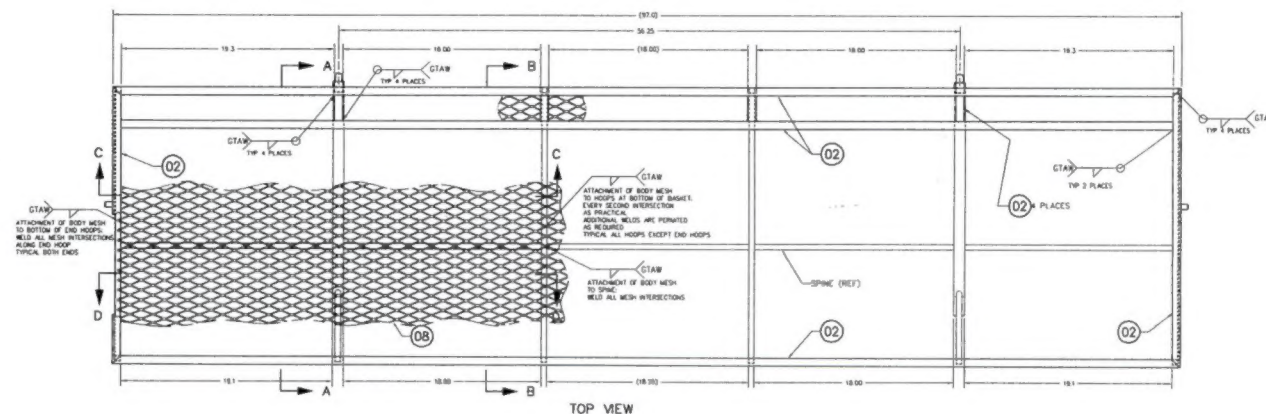
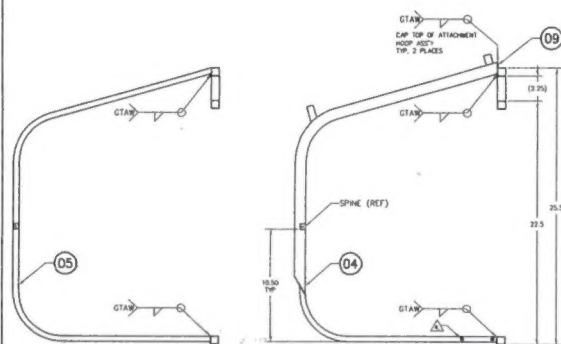
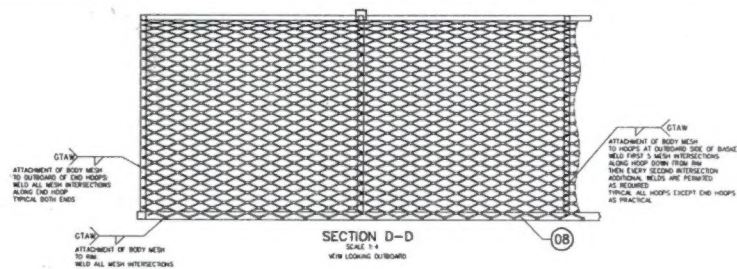
ORIGINAL TAG MISPLACED, NEW TAG CREATED  
FOR REMAINING PARTS.



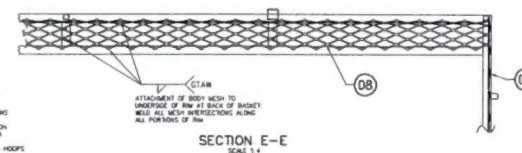
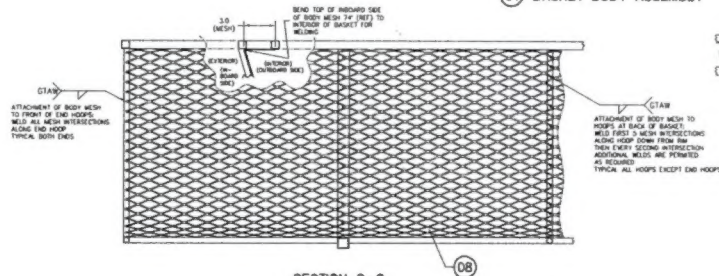
2017-178

Basket + Lid \*5 X (10) PRM

REV	DESCRIPTION OF CHANGE	INITIALS	DATE
0			
1	WELD BRIDGE TAPPLINGS, WELDING ROD UPDATES, INTERFERENCE SPACE ADDED		07/28/2007
2	NEW DIMENSIONS (UPDATED) WELDS DOWN SIZES INCREASED		



(D1) BASKET BODY ASSEMBLY



- NOTES:
- REMOVE ALL BURRS AND BREAK SHARP EDGES.
  - PRIOR TO WELDING, DRILL #50 (0.125) VENT HOLES IN ASSEMBLY FOR VENTING OF MELT GASES. WHEN ASSEMBLY IS COMPLETE, FILL ALL EXPOSED VENT HOLES WITH ROSINITE WELD.
  - WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AND 2086C. 4130 AND 1018 STEEL: WELDING ROD SHALL CONFORM TO EXXOS-2 OR EQUIVALENT. STAINLESS AND 4130 STEEL: WELDING ROD SHALL CONFORM TO EXXOS-2 OR EQUIVALENT.
  - INSTALL NEW 7 (DASH) HANDLE PROVISIONS ASSEMBLY IN ACCORDANCE WITH AERO DESIGN LTD. DRAWING 0455 BEFORE WELDING HOOPS TO FIN.
  - FINISH THOROUGHLY CLEAN AND POWDER COAT BASKET ASSEMBLY.

QTY	PART NO.	NEW	DESCRIPTION	MATERIAL/NOTE	MATERIAL SPEC	STOCK SIZE
1	08	NEW	DR CAP			
1	09	NEW	DR HOOP			
1	10	NEW	DR HOOP			
1	11	NEW	DR HOOP			
1	12	NEW	DR HOOP			
1	13	NEW	DR HOOP			
1	14	NEW	DR HOOP			
1	15	NEW	DR HOOP			
1	16	NEW	DR HOOP			
1	17	NEW	DR HOOP			
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1	19	NEW	DR HOOP			
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1	97	NEW	DR HOOP			
1	98	NEW	DR HOOP			
1	99	NEW	DR HOOP			
1	100	NEW	DR HOOP			

APPROVALS	DATE	08 AUG 11
DESIGNER: E. BURTON		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		
DECIMALS	0.000	0.001
INCHES	0.000	0.001
FEET	0.000	0.001
SCALE: 1:1		
SHEET 1 OF 1	A0	94011
REV	1	

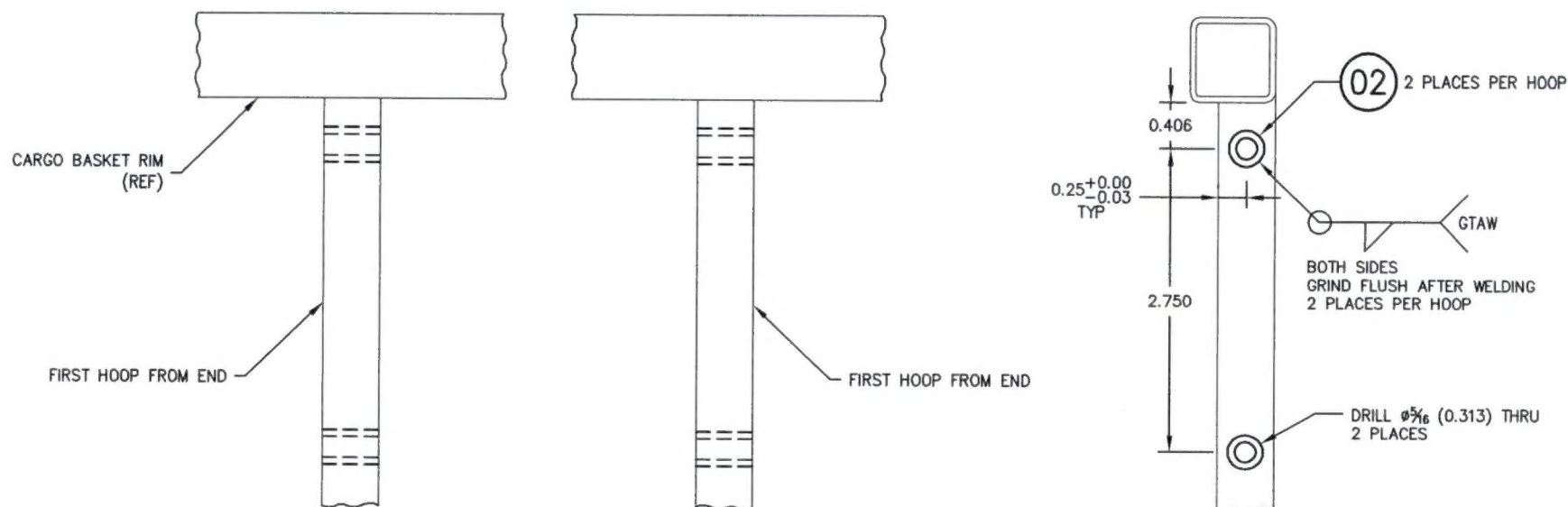
**AERO DESIGN LTD.**  
 10000 KALAMAZOO ROAD  
 PORTLAND, ME 04106  
 TEL: 207-888-8888  
 FAX: 207-888-8888  
 WWW.AERODESIGN.COM

**EUROCOPTER AS350 & AS350 SERIES**  
**QUICK RELEASE CARGO BASKET**  
**BASKET BODY ASSEMBLY (EXTRA LARGE)**

2017-178

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REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE - CREATED FROM 36262	BJC	03/11/2009
1	CHANGE LOCATION OF BUSHINGS	BJC	29/09/2011
2	UPDATED TITLE BLOCK, MOVE LID PROVISIONS TO 84263	BJC	14/02/2014



# 01 BASKET HANDLE PROVISIONS ASSEMBLY PROVISIONS TO BE INSTALLED IN HOOPS BEFORE ASSEMBLY TO BASKET RIM

## NOTES:

1. REMOVE ALL BURRS AND SHARP EDGES.
2. WELDING TO BE COMPLETED BY GTAW METHOD TO AMS2685C USING ROD CONFORMING TO ER70S-2 OR EQUIVALENT.

4	84272-01	02	BUSHING
	84262-01	01	BASKET HANDLE PROV. ASSY
01	PART NO.	ITEM	DESCRIPTION
QTY	LIST OF MATERIALS		

APPROVALS	DATE
DRAWN: JEFF CLARKE	03 NOV 2009
CHECKED: E. BURGAIN	

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES.  
TOLERANCES ON:  
DECIMALS ANGLES  
X.XXX ±0.010 ±1/2°  
X.XX ±0.03  
X.X ±0.1



**AERO DESIGN LTD.**

9888A MALASPINA ROAD  
POWELL RIVER, BC, CANADA, V8A 0G3  
TEL: 804.483.6376 www.aerodesign.ca

HELICOPTER CARGO BASKET  
BASKET HANDLE PROVISIONS ASSEMBLY

SCALE 1 : 1	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 1	A3	84262	2



AS350/AS355

XL ~~X5~~ X (10)

## CARGO BASKET BODY FABRICATION - COMMON

### General

These instructions apply to all cargo basket body assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

#### **Bell 206L/407** – Right side only

69811, Revision 3 – Standard Low Mounted Basket

94511, Revision 0 – Extra-Wide Low Mounted Basket

94611, Revision 0 – Extra-Wide Low Mounted Ski Basket

76611, Revision 0 – High Mounted Ski Basket

*Options* 70404, Revision 2 – Front end cutout – 698

70411, Revision 0 – Front end cutout – 945/946

#### **Eurocopter AS350/AS355** – left or right

77611, Revision 1 – Short Basket

76411, Revision 3 – Medium Basket (left or right)

78411, Revision 2 – Long Basket

94011, Revision 0 – Extra Large (ski) Basket ← \*

*Options* 70406, Revision 2 – Front end cutout – 764/776/784/940

#### **Robinson R44** – left or right

90611, Revision 0 – Standard Basket (left or right)

#### **Bell 206B** – right side only

80211, Revision 0 – Short Basket

80311, Revision 0 – Medium Basket

81111, Revision 0 – Long Basket

*Options* 70406, Revision 2 – Front end cutout – 802/803/811

#### **Bell 429** – right or left

95911, Revision 0 – Standard Basket

#### **Bell Medium** – left or right

75111, Revision 0 – Standard Basket

95511, Revision 0 – Extra Large (ski) Basket

*Options* 70407, Revision 1 – Front end cutout – 751

704, Revision – Front end cutout – 955

#### **MD600**

82811, Revision 0 – Standard Basket

#### **Options** – Applicable to all models

70403, Revision 5 – Auxiliary Latch

#1-5

**CARGO BASKET BODY FABRICATION - COMMON****Complete**  
(initial or SCA #)Work Order: 2017-178Date Open: 03 Nov. 2017

## 1. Rim Assembly – Basket Body

- a. Cut and fit  $\frac{3}{4}$ " x 0.035 material to fit rim jig.
  - i. 1 or 2 lid prop bushing holes in short tube – refer to drawing
- b. Record material PO on attached material list.
- c. Remove writing on tubes with acetone and scotch bright.
- d. For extra large baskets – drill #30 (0.129) vent holes to vent stringer tubes into rims.
- e. 94611 (206L/407 XL ski) only – drill for 4 threaded bushings before assembling rim.

## 2. Weld Rim Assembly.

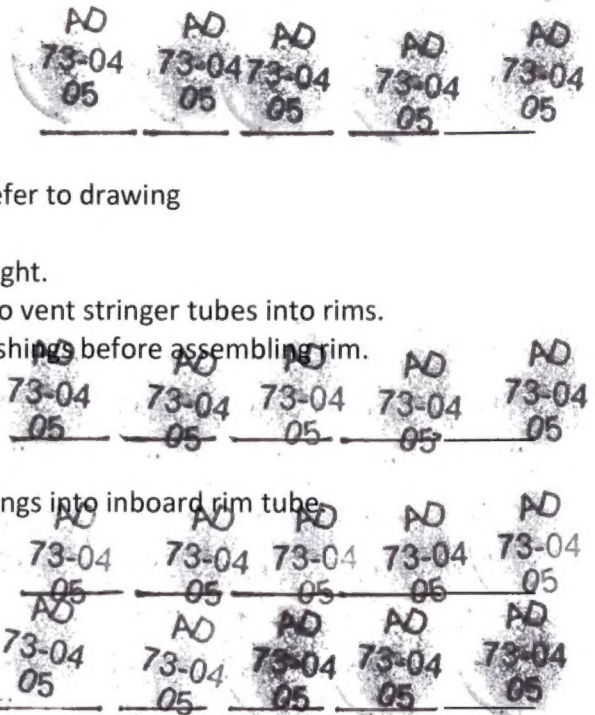
- a. Record welding rod PO on attached material list.
- b. 94611 (206L/407 XL ski) only – weld 4 threaded bushings into inboard rim tube.

## 3. Inspection

- a. Rim for complete welds

## 4. Frame assembly – body

- a. General
  - i. Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing, hoops, etc.)
- b. Grind corner welds from step 2 on rim to allow hoops to sit flat.
- c. Pull required hoops from stock - standard, attachment, handle.
  - i. If hoops are not in stock see detailed procedure sheet for specific hoop fabrication.
  - ii. Ensure vent hole is located at centre of tube to vent spine tubes.
- d. Assemble hoops with attachment lug locating jig and hoop spacing jig.
  - i. Ensure correct order and orientation of hoops. Refer to drawing.
    1. Attachment lugs are on inboard side.
    2. Handle bracket bushings are on outboard side, second hoop from both ends.  
May be on attachment hoops.
  - ii. Run 3/8-24 tap into attachment lugs to ensure clear threads.
  - iii. Bolt attachment lug locating jig to attachment hoops with 3/8-24 bolts.
  - iv. Attach inboard and outboard hoop spacing jigs to all hoops using 1" C-clamps. Raise jigs approximately 2" off table to allow room to weld around hoops.
  - v. Attach bottom (spine) jig to all hoops using 1" C-clamps along the centre line of the basket. Ensure jig is straight prior to tightening all clamps.
- e. Cut  $\frac{1}{2}$ " x 0.035 material to fit spine jig.
- f. Cut  $\frac{1}{2}$ " x 0.035 material for strut to fit from lower inboard attachment to upper outboard rim.
  - i. Refer to applicable drawing for position, not required on some baskets.
- g. Option: Cut  $\frac{1}{2}$ " x 0.035 material for front end cutout. Record material PO on attached material list.
- h. 90611 (R44) only: Cut  $\frac{1}{2}$ " x 0.035 material to fit front end structure. Record material PO on attached material list.
- i. Drill vent holes into attachment hoop and/or rim to vent strut(s) and front end cutout.





## CARGO BASKET BODY FABRICATION - COMMON

Complete  
(initial or SCA #)

- j. Record hoop WOs and material POs on attached material list.
- k. Remove writing on tubes with acetone and scotch bright.
- l. Insert rim assembly into jig and set frame assembly onto rim. Ensure correct orientation of lid prop bushings in rim to frame. Bushing hole must be closer to attachment side.
- m. Align hoops to rim in accordance with drawing. General positions:
  - i. Extra large baskets
    - 1. inboard side of hoops (attachment side) aligns to OUTSIDE of rim
    - 2. outboard side of hoops (handle side) aligns to INSIDE of rim
    - 3. forward and aft hoops align to INSIDE of rim
  - ii. All other baskets
    - 1. inboard side of hoops (attachment side) aligns to INSIDE of rim
    - 2. outboard side of hoops (handle side) aligns to INSIDE of rim
    - 3. forward and aft hoops align to INSIDE of rim, except R44

### 5. TIG weld frame to rim assembly.

- a. Ensure lug locating jig and hoop locating jigs are in place. Jigs must remain in place for as long as practical during welding.
- b. Strut tubes and front end cutout (see step 4.f. and g.) must be welded in place after the hoops are welded to the rim. Jig(s) must be in place prior to welding strut tubes.
- c. Robinson R44 (90611) requires fitting and welding of forward end after remainder of basket frame is welded. Use jig to support front hoop.
- d. Record welding rod PO on attached material list.

### 6. Inspection

- a. Frame assembly for complete welds.

### 7. Mesh assembly.

- a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- b. Cut mesh to size for body.
- c. Remove surface rust with scotch-brite.
- d. Bend body mesh – use table with bend markings on top. Lock wheels on table.
  - i. For extra wide baskets only –
    - 1. Set  $\frac{3}{4}$ " angle along edge of table under mesh sheet. Set 1.5" square tube on top of mesh aligned with angle on edge of table. Clamp in place with 6" C-clamps.
    - 2. Bend upper edge of sheet just past a cell intersection to make a flange 2.5" - 3.25" wide. Closer to 2.5" is preferred, full cell intersection on flange side at bend is required.
    - 3. Bend down by hand as far as possible, then use a hammer to flatten the bend tight against the angle on the edge of the table.
  - ii. Using markings on table, align sheet to indicated edge.
  - iii. Using markings on table, align 3" tube to required position and clamp tube in place.
  - iv. Bend mesh by hand tightly over tube along length of tube.
  - v. Keeping mesh in place, un-clamp 3" tube, move to other position and clamp tube in place.
  - vi. Bend mesh by hand tightly over tube along length of tube.
- e. Install attachment lug jig onto basket frame.



## CARGO BASKET BODY FABRICATION - COMMON

Complete  
(initial or SCA #)

- f. Ensure end struts are welded in basket frame if required by the drawing.
- g. Insert mesh into basket.
  - i. General
    1. Some cells may interfere with correct positioning, especially at the upper corners and around struts. Bend cell(s) in as required, do not cut cells off.
    2. Ideally welds will be located on mesh intersections. Shift mesh if possible to minimize welds located off mesh intersections.
    3. Ensure mesh reaches all edges of basket BEFORE trimming. Regardless of progress in clamping, remove clamps and shift mesh if required.
    4. Ensure cleco clamps are placed from the inside of the basket to allow removal during welding. Cleco clamps may be used from the outside during fitting, but must be removed prior to welding.
  - ii. Extra large baskets only – seat corner of mesh with flange into inboard upper corner of frame. Use C-clamps on edge of flange as required to maintain tight fit.
  - iii. Starting at inboard top edge of basket, clamp mesh to hoop near top rim using cleco clamps onto hoops. For regular size baskets, edge of mesh should sit approximately half way up rim tube.
  - iv. Working down the inboard side, clamp mesh to hoops with cleco clamps. Clamp down into radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, two clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
  - v. Clamp mesh to spine in at least 1 place per section.
  - vi. Working up the outboard side, clamp the mesh into the radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, 2 clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
  - vii. Trim upper outboard edge of mesh if required, edge of mesh must be low enough on rim tube to prevent the weld from protruding above the edge of the rim. Some sheets are tapered and may require  $\frac{1}{2}$  to 1 cell to be removed over some or all of the length of the basket. De-burr cut edges with a sanding disc on a die-grinder. Straighten cut cells with duck-bill pliers. Clamp mesh near upper edge to hoops with cleco clamps after trimming.
  - viii. Trim ends to land on hoops, at mesh intersections if possible.
- h. Cut mesh to fit ends. Record material PO on attached material list.
  - i. Remove surface rust with scotch-brite.
  - ii. Ensure mesh is cut at intersections where possible.
  - iii. Bend top edge of mesh  $1/8''$ - $3/16''$  down at 45 degrees
  - iv. Cut for front end cutout if required.
- i. 90611 (R44) only: Cut mesh to fit upper forward end. Record material PO on attached material list.
  - i. Remove surface rust with scotch-brite.
  - ii. Ensure mesh is cut at intersections where possible.
  - iii. Bend top edge of mesh  $1/4''$  down at 60 degrees.
  - iv. Fit mesh to front end of basket.

## CARGO BASKET BODY FABRICATION - COMMON

### 8. Weld mesh to frame assembly per drawing.

- a. Ensure lug locating jig is in place prior to welding.
- b. General welding requirements for all baskets, MIG welding:
  - i. Every intersection at top edges.
  - ii. Every intersection at ends.
  - iii. First 5 intersections down on hoops, then every second intersection.
  - iv. Every intersection along spine.
  - v. Extra large baskets – every intersection along corner.
  - vi. Every intersection around ends
  - vii. Every intersection along struts (if applicable)
- c. Bend and trim cells bent in to fit mesh as required and weld in position.
- d. Grind high spots off body mesh welds on ends before welding end mesh.
- e. 90611 (R44) only – weld lid prop bushing (step 9) into rim BEFORE welding upper mesh on forward end of basket assembly.
- f. Record welding rod PO on attached material list.

### 9. Weld basket components

- a. TIG weld lid prop bushing(s), one or two per drawing.
  - i. Record welding rod PO on attached material list.
  - ii. Record lip prop bushing WO on attached material list.
- b. TIG weld caps to close top of 1" hoops as applicable.
- c. 94611 (Bell206L/407 XL ski) only: cut rim over cross tube gap.
  - i. Cut inboard rim on aft end. Grind flush with hoops.
  - ii. TIG weld caps on open tubes.
  - iii. Record cap material PO on attached material list.
- d. 95911 (Bell 429) only: placard bracket to forward upper corner of basket.
  - i. Record welding rod PO on attached material list.
  - ii. Record placard bracket WO on attached material list.

### 10. Clean up

- a. Grind high spots off mesh welds.
- b. Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out. Do not tighten in corners of hoops, mesh will be deformed.
- c. ~~Drill #9 through lid prop bushing(s). De-burr hole(s).~~
- d. Remove surface rust with scotch-brite pad.

### 11. Final Inspection

To be completed by a different person than the previous steps.

- a. Basket body assembly for complete welds, and required minimum mesh weld locations.
- b. Filled vent holes – usually on hoops
- c. Overall condition and conformity to drawing(s).
  - i. Hoops for height.
  - ii. Rim for width and length and alignment.
  - iii. Lid prop lugs in correct ends.
  - iv. Fore/aft strut in hoop if required by drawing.
- d. Material lists complete.

AD 73-04 05 AD 73-04 05 AD 73-04 05 Complete (initial or SCA #) AD 73-04 05

AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05

SE SE SE SE SE

AD 73-04 02 AD 73-04 02 AD 73-04 02 AD 73-04 02 AD 73-04 02

**CARGO BASKET BODY FABRICATION - COMMON**

**Complete**  
(initial or SCA #)

- e. Tag complete basket body assembly in preparation for powder coating.

**12. Powder Coating**

- a. Parts are to be powder coated white in accordance with commercial practices.  
b. Record powder coating PO.  
c. Inspect powder coating on receiving.  
d. Tag basket body assembly and place into stock in preparation for assembly.

AD AD AD AD AD  
73-04 73-04 73-04 73-04 73-04  
02 02 02 02 02



6-10

AS350/AS355  
XL ~~X5~~ X(10)

## CARGO BASKET BODY FABRICATION - COMMON

### General

These instructions apply to all cargo basket body assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

#### **Bell 206L/407** – Right side only

69811, Revision 3 – Standard Low Mounted Basket

94511, Revision 0 – Extra-Wide Low Mounted Basket

94611, Revision 0 – Extra-Wide Low Mounted Ski Basket

76611, Revision 0 – High Mounted Ski Basket

*Options*      70404, Revision 2 – Front end cutout – 698  
                 70411, Revision 0 – Front end cutout – 945/946

#### **Eurocopter AS350/AS355** – left or right

77611, Revision 1 – Short Basket

76411, Revision 3 – Medium Basket (left or right)

78411, Revision 2 – Long Basket

94011, Revision 0 – Extra Large (ski) Basket ← \*

*Options*      70406, Revision 2 – Front end cutout – 764/776/784/940

#### **Robinson R44** – left or right

90611, Revision 0 – Standard Basket (left or right)

#### **Bell 206B** – right side only

80211, Revision 0 – Short Basket

80311, Revision 0 – Medium Basket

81111, Revision 0 – Long Basket

*Options*      70406, Revision 2 – Front end cutout – 802/803/811

#### **Bell 429** – right or left

95911, Revision 0 – Standard Basket

#### **Bell Medium** – left or right

75111, Revision 0 – Standard Basket

95511, Revision 0 – Extra Large (ski) Basket

*Options*      70407, Revision 1 – Front end cutout – 751  
                 704, Revision – Front end cutout – 955

#### **MD600**

82811, Revision 0 – Standard Basket

#### **Options** – Applicable to all models

70403, Revision 5 – Auxiliary Latch

#6-10

## CARGO BASKET BODY FABRICATION - COMMON

Complete  
(initial or SCA #)Work Order: 2017-178Date Open: 03 NOV. 2017

## 1. Rim Assembly – Basket Body

- a. Cut and fit  $\frac{3}{4}$ " x 0.035 material to fit rim jig.
  - i. 1 or 2 lid prop bushing holes in short tube – refer to drawing
- b. Record material PO on attached material list.
- c. Remove writing on tubes with acetone and scotch bright.
- d. For extra large baskets – drill #30 (0.129) vent holes to vent stringer tubes into rims.
- e. 94611 (206L/407 XL ski) only – drill for 4 threaded bushings before assembling rim.

## 2. Weld Rim Assembly.

- a. Record welding rod PO on attached material list.
- b. 94611 (206L/407 XL ski) only – weld 4 threaded bushings into inboard rim tube.

## 3. Inspection

- a. Rim for complete welds

## 4. Frame assembly – body

- a. General
  - i. Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing, hoops, etc.)
- b. Grind corner welds from step 2 on rim to allow hoops to sit flat.
- c. Pull required hoops from stock - standard, attachment, handle.
  - i. If hoops are not in stock see detailed procedure sheet for specific hoop fabrication.
  - ii. Ensure vent hole is located at centre of tube to vent spine tubes.
- d. Assemble hoops with attachment lug locating jig and hoop spacing jig.
  - i. Ensure correct order and orientation of hoops. Refer to drawing.
    1. Attachment lugs are on inboard side.
    2. Handle bracket bushings are on outboard side, second hoop from both ends. May be on attachment hoops.
  - ii. Run 3/8-24 tap into attachment lugs to ensure clear threads.
  - iii. Bolt attachment lug locating jig to attachment hoops with 3/8-24 bolts.
  - iv. Attach inboard and outboard hoop spacing jigs to all hoops using 1" C-clamps. Raise jigs approximately 2" off table to allow room to weld around hoops.
  - v. Attach bottom (spine) jig to all hoops using 1" C-clamps along the centre line of the basket. Ensure jig is straight prior to tightening all clamps.
- e. Cut  $\frac{1}{2}$ " x 0.035 material to fit spine jig.
- f. Cut  $\frac{1}{2}$ " x 0.035 material for strut to fit from lower inboard attachment to upper outboard rim.
  - i. Refer to applicable drawing for position, not required on some baskets.
- g. Option: Cut  $\frac{1}{2}$ " x 0.035 material for front end cutout. Record material PO on attached material list.
- h. 90611 (R44) only: Cut  $\frac{1}{2}$ " x 0.035 material to fit front end structure. Record material PO on attached material list.
- i. Drill vent holes into attachment hoop and/or rim to vent strut(s) and front end cutout.

AD 73-04 05	AD 73-04 05	AD 73-04 05	AD 73-04 05	AD 73-04 05
AD 73-04 05	AD 73-04 05	AD 73-04 05	AD 73-04 05	AD 73-04 05
AD 73-04 05	AD 73-04 05	AD 73-04 05	AD 73-04 05	AD 73-04 05
AD 73-04 05	AD 73-04 05	AD 73-04 05	AD 73-04 05	AD 73-04 05

2017-178

# CARGO BASKET BODY FABRICATION - COMMON

Complete  
(initial or SCA #)

- j. Record hoop WOs and material POs on attached material list.
- k. Remove writing on tubes with acetone and scotch bright.
- l. Insert rim assembly into jig and set frame assembly onto rim. Ensure correct orientation of lid prop bushings in rim to frame. Bushing hole must be closer to attachment side.
- m. Align hoops to rim in accordance with drawing. General positions:
  - i. Extra large baskets
    1. inboard side of hoops (attachment side) aligns to OUTSIDE of rim
    2. outboard side of hoops (handle side) aligns to INSIDE of rim
    3. forward and aft hoops align to INSIDE of rim
  - ii. All other baskets
    1. inboard side of hoops (attachment side) aligns to INSIDE of rim
    2. outboard side of hoops (handle side) aligns to INSIDE of rim
    3. forward and aft hoops align to INSIDE of rim, except R44

## 5. TIG weld frame to rim assembly.

- a. Ensure lug locating jig and hoop locating jigs are in place. Jigs must remain in place for as long as practical during welding.
- b. Strut tubes and front end cutout (see step 4.f. and g.) must be welded in place after the hoops are welded to the rim. Jig(s) must be in place prior to welding strut tubes.
- c. Robinson R44 (90611) requires fitting and welding of forward end after remainder of basket frame is welded. Use jig to support front hoop.
- d. Record welding rod PO on attached material list.

## 6. Inspection

- a. Frame assembly for complete welds.

## 7. Mesh assembly.

- a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- b. Cut mesh to size for body.
- c. Remove surface rust with scotch-brite.
- d. Bend body mesh – use table with bend markings on top. Lock wheels on table.
  - i. For extra wide baskets only –
    1. Set  $\frac{3}{4}$ " angle along edge of table under mesh sheet. Set 1.5" square tube on top of mesh aligned with angle on edge of table. Clamp in place with 6" C-clamps.
    2. Bend upper edge of sheet just past a cell intersection to make a flange 2.5" - 3.25" wide. Closer to 2.5" is preferred, full cell intersection on flange side at bend is required.
    3. Bend down by hand as far as possible, then use a hammer to flatten the bend tight against the angle on the edge of the table.
  - ii. Using markings on table, align sheet to indicated edge.
  - iii. Using markings on table, align 3" tube to required position and clamp tube in place.
  - iv. Bend mesh by hand tightly over tube along length of tube.
  - v. Keeping mesh in place, un-clamp 3" tube, move to other position and clamp tube in place.
  - vi. Bend mesh by hand tightly over tube along length of tube.
- e. Install attachment lug jig onto basket frame.

AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05

AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05

Jf. Jf. Jf. Jf. Jf. dk



**CARGO BASKET BODY FABRICATION - COMMON****Complete**  
(initial or SCA #)

- f. Ensure end struts are welded in basket frame if required by the drawing.
- g. Insert mesh into basket.
  - i. General
    - 1. Some cells may interfere with correct positioning, especially at the upper corners and around struts. Bend cell(s) in as required, do not cut cells off.
    - 2. Ideally welds will be located on mesh intersections. Shift mesh if possible to minimize welds located off mesh intersections.
    - 3. Ensure mesh reaches all edges of basket BEFORE trimming. Regardless of progress in clamping, remove clamps and shift mesh if required.
    - 4. Ensure cleco clamps are placed from the inside of the basket to allow removal during welding. Cleco clamps may be used from the outside during fitting, but must be removed prior to welding.
  - ii. Extra large baskets only – seat corner of mesh with flange into inboard upper corner of frame. Use C-clamps on edge of flange as required to maintain tight fit.
  - iii. Starting at inboard top edge of basket, clamp mesh to hoop near top rim using cleco clamps onto hoops. For regular size baskets, edge of mesh should sit approximately half way up rim tube.
  - iv. Working down the inboard side, clamp mesh to hoops with cleco clamps. Clamp down into radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, two clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
  - v. Clamp mesh to spine in at least 1 place per section.
  - vi. Working up the outboard side, clamp the mesh into the radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, 2 clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
  - vii. Trim upper outboard edge of mesh if required, edge of mesh must be low enough on rim tube to prevent the weld from protruding above the edge of the rim. Some sheets are tapered and may require ½ to 1 cell to be removed over some or all of the length of the basket. De-burr cut edges with a sanding disc on a die-grinder. Straighten cut cells with duck-bill pliers. Clamp mesh near upper edge to hoops with cleco clamps after trimming.
  - viii. Trim ends to land on hoops, at mesh intersections if possible.
- h. Cut mesh to fit ends. Record material PO on attached material list.
  - i. Remove surface rust with scotch-brite.
  - ii. Ensure mesh is cut at intersections where possible.
  - iii. Bend top edge of mesh 1/8"-3/16" down at 45 degrees
  - iv. Cut for front end cutout if required.
- i. 90611 (R44) only: Cut mesh to fit upper forward end. Record material PO on attached material list.
  - i. Remove surface rust with scotch-brite.
  - ii. Ensure mesh is cut at intersections where possible.
  - iii. Bend top edge of mesh 1/4" down at 60 degrees.
  - iv. Fit mesh to front end of basket.

2017-178

# CARGO BASKET BODY FABRICATION - COMMON

## 8. Weld mesh to frame assembly per drawing.

- a. Ensure lug locating jig is in place prior to welding.
- b. General welding requirements for all baskets, MIG welding:
  - i. Every intersection at top edges.
  - ii. Every intersection at ends.
  - iii. First 5 intersections down on hoops, then every second intersection.
  - iv. Every intersection along spine.
  - v. Extra large baskets – every intersection along corner.
  - vi. Every intersection around ends
  - vii. Every intersection along struts (if applicable)
- c. Bend and trim cells bent in to fit mesh as required and weld in position.
- d. Grind high spots off body mesh welds on ends before welding end mesh.
- e. 90611 (R44) only – weld lid prop bushing (step 9) into rim BEFORE welding upper mesh on forward end of basket assembly.
- f. Record welding rod PO on attached material list.

AD 73-04 05 AD 73-04 05 AD 73-04 05 Complete (initial or SCA #) AD 73-04 05 AD 73-04 05

## 9. Weld basket components

- a. TIG weld lid prop bushing(s), one or two per drawing.
  - i. Record welding rod PO on attached material list.
  - ii. Record lip prop bushing WO on attached material list.
- b. TIG weld caps to close top of 1" hoops as applicable.
- c. 94611 (Bell206L/407 XL ski) only: cut rim over cross tube gap.
  - i. Cut inboard rim on aft end. Grind flush with hoops.
  - ii. TIG weld caps on open tubes.
  - iii. Record cap material PO on attached material list.
- d. 95911 (Bell 429) only: placard bracket to forward upper corner of basket.
  - i. Record welding rod PO on attached material list.
  - ii. Record placard bracket WO on attached material list.

AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05

## 10. Clean up

- a. Grind high spots off mesh welds.
- b. Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out. Do not tighten in corners of hoops, mesh will be deformed.
- c. ~~Drill #9 through lid prop bushing(s). De-burr hole(s).~~
- d. Remove surface rust with scotch-brite pad.

J.F. J.F. J.F. J.F. J.F. OK

## 11. Final Inspection

To be completed by a different person than the previous steps.

- a. Basket body assembly for complete welds, and required minimum mesh weld locations.
- b. Filled vent holes – usually on hoops
- c. Overall condition and conformity to drawing(s).
  - i. Hoops for height.
  - ii. Rim for width and length and alignment.
  - iii. Lid prop lugs in correct ends.
  - iv. Fore/aft strut in hoop if required by drawing.
- d. Material lists complete.

AD 73-04 02 AD 73-04 02 AD 73-04 02 AD 73-04 02 AD 73-04 02

2017-178

**CARGO BASKET BODY FABRICATION - COMMON**

**Complete**  
(initial or SCA #)

- e. Tag complete basket body assembly in preparation for powder coating.

**12. Powder Coating**

- a. Parts are to be powder coated white in accordance with commercial practices.  
b. Record powder coating PO.  
c. Inspect powder coating on receiving.  
d. Tag basket body assembly and place into stock in preparation for assembly.

AD  
73-04  
02

AD  
73-04  
02

AD  
73-04  
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AD  
73-04  
02

AD  
73-04  
02



Work Order: 2017-178  
 Date Opened: 03 Nov. 2017

Material Tracking Sheet  
 Eurocopter AS350 / AS355  
 Extra Large Basket Body Fabrication

1 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/NO
	<u>10</u>	94011	<b>94011-01</b>	<b>Basket Assembly</b>		
<b>Step 1</b>				<i>Rim Assembly</i>		
	. 2		--	3/4" Tube - Long Rim (97")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>17091</u>
	. 2		--	3/4" Tube - Short Rim (25.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>2017-83/17055</u>
	. 1		--	3/4" Tube - Long Stringer (95.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>17091/2017-133</u>
	. 4		--	3/4" Tube - Short Stringer (2.25")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>14009/2017-153</u>
<b>Step 2</b>				<i>Weld Rim Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>16078</u>
<b>Step 3</b>				<i>Inspection - Rim</i>	None	
<b>Step 4</b>				<i>Frame Assembly</i>		
	. 4		94030-01	Hoop - standard	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>2017-183</u>
	. 2		94023-01	Hoop - attachment		<u>2017-182</u>
	. 5		--	1/2" Tube - spine	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>17082</u>
<b>Step 4.g.</b>		70406	70406-01	<i>Option: Front End Cutout</i>		
			70406-03	1/2" Tube	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>NA</u>
			70406-04	1/2" Tube	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>NA</u>
<b>Step 5</b>				<i>Weld Frame Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>16078</u>
<b>Step 6</b>				<i>Inspection - Frame Assembly</i>	None	
<b>Step 7</b>				<i>Mesh Assembly</i>		
	. 1		--	Mesh (Body - 56" x 96")	3/4-16F Expanded Mild Steel sheet	<u>17098</u>
	. 2		--	Mesh (End - 25" x 18")	3/4-16F Expanded Mild Steel sheet	<u>17098/16009/17107</u>

17025

Work Order: 2017-178  
 Date Opened: 03 Nov. 2017

Material Tracking Sheet  
 Eurocopter AS350 / AS355  
 Extra Large Basket Body Fabrication

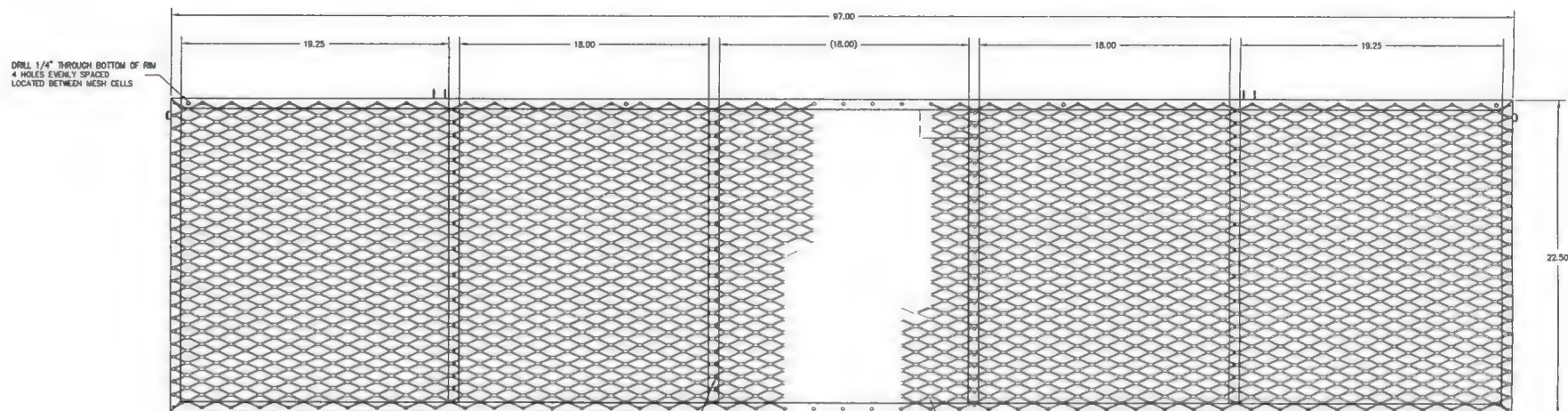
2 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
<b>Step 8</b>				<i>Weld Mesh</i>		
	A/R		--	Welding Rod	ER70S-6 MIG Wire	<u>16078</u>
<b>Step 9</b>				<i>Weld Basket Components</i>		
	2		49215-01	Spacer (Lid prop)	304 Stainless Steel, 1/2" Dia.	<u>2015-84</u>
	A/R		--	Welding Rod	ER308L TIG Rod	<u>17066</u>
<b>Step 10</b>				<i>Clean Up</i>	None	
<b>Step 11</b>				<i>Inspection - Final Assembly</i>	None	
<b>Step 12</b>				Powder Coating		<u>17110</u> <u>17117</u> <u>17118</u> <u>18005</u> <u>18008</u> (2) (2) (2) (2) (2)

2017-178

X (10)

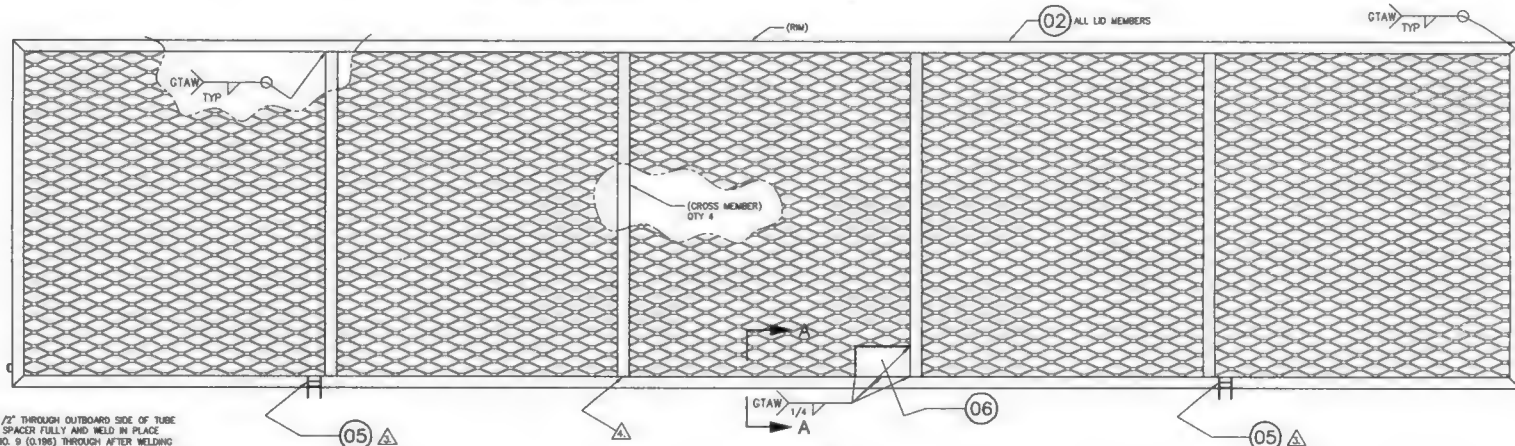
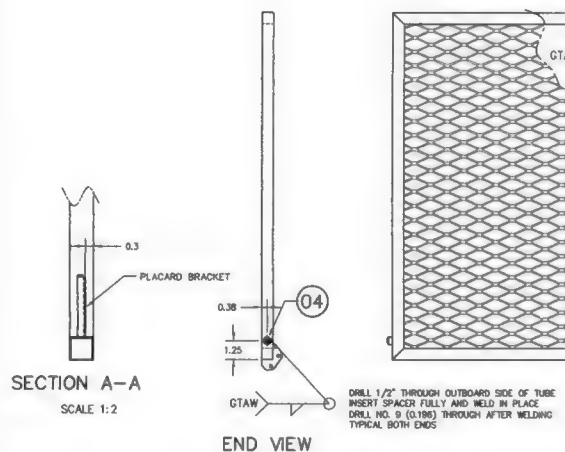
THIS DRAWING CONTAINS INFORMATION AND DATA WHICH IS PROPRIETARY TO AERO DESIGN LTD. THIS DRAWING OR ANY PORTION THEREOF, MAY NOT BE REPRODUCED, COPIED, OR DUPLICATED IN ANY MANNER, NOR USED FOR MANUFACTURING WITHOUT THE WRITTEN CONSENT OF AERO DESIGN LTD. BY ACCEPTING THIS DRAWING FOR REFERENCE, THE RECIPIENT AGREES TO HOLD AERO DESIGN LTD. HARMLESS FROM THE USE, OR MISUSE, OF THIS DRAWING OR THE INFORMATION CONTAINED THEREIN.			
REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	TITLE BLOCK UPDATED; CHANGED 36273-01 TO 84263-01; ITEM #5 ADDED	BAC	10/07/2014
	WELDING ROD UPDATED; # OF WELDS DOWN BRACE TUBES INCREASED		



GTAW TYP  
ATTACHMENT OF MESH TO RM: WELD EACH INTERSECTION

GTAW TYP  
ATTACHMENT OF MESH TO CROSS MEMBERS: WELD FIRST FIVE INTERSECTIONS THEN EVERY SECOND INTERSECTION. ADDITIONAL WELDS ARE PERMITTED AS REQUIRED.

BOTTOM VIEW (03) MESH



TOP VIEW

(01) LID ASSEMBLY

#### NOTES:

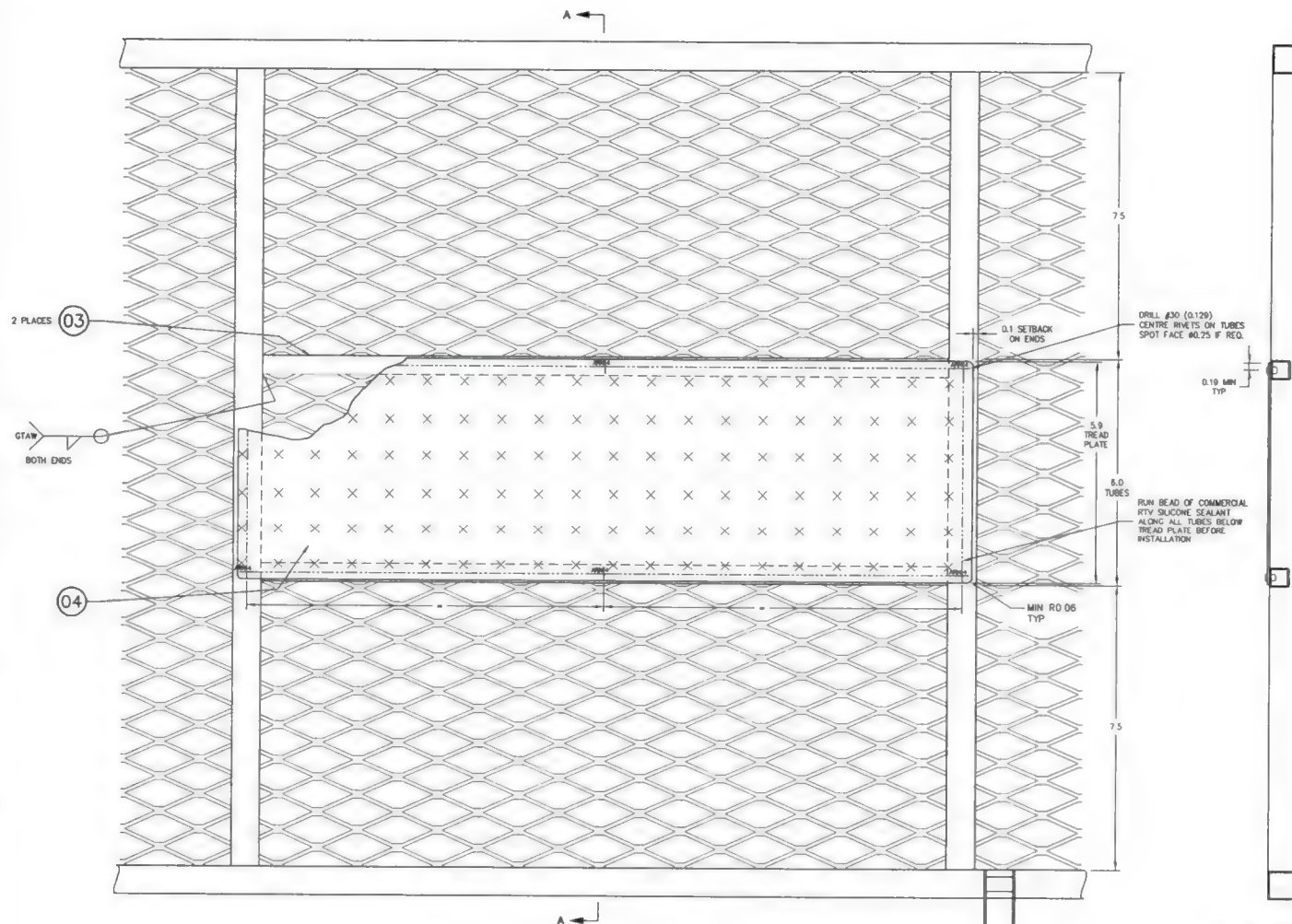
1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AWS 2685C. 4130 AND 1018 STEEL: WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT. STAINLESS AND 4130 STEEL: WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT.
3. INSTALL ITEM 5 (LID HANDLE PROVISIONS ASSEMBLY) IN ACCORDANCE WITH AERO DESIGN LTD. DRAWING 84263.
4. DRILL #30 (0.129) HOLES IN LONG TUBE MEMBERS AT BRACE LOCATIONS TO VENT WELD CASSES. WHEN ASSEMBLY IS COMPLETE, FILL ALL EXPOSED VENT HOLES WITH ROSETTE WELD.
5. FINISH THOROUGHLY CLEAN AND POWDER COAT LID ASSEMBLY.

QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
1	36204-10	06	PLACARD BRACKET			
1	84263-01	05	LID HANDLE PROVISIONS ASSEMBLY			
2	49216-01	04	SPACER			
A/R	3/4 - 18F	03	MESH	MILD STEEL	COMMERCIAL	
A/R		02	SQUARE TUBE	4130 STEEL COND. N	MIL-T-8736	0.75 X 0.035 SQR TUBE
	94012-01	01	LID ASSEMBLY			
LIST OF MATERIALS						

APPROVALS		DATE	AERO DESIGN LTD.	
DRAWN: R. RATHWELL		05 AUG 11	8008A MALASPINA ROAD POWELL RIVER, BC, CANADA, V8A 0G5 TEL: 866.680.8070 www.aerodesign.ca	
CHECKED: E. BURGOIN			EUROCOPTER AS350 & AS355 SERIES QUICK RELEASE CARGO BASKET LID ASSEMBLY (EXTRA LARGE)	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:			SCALE 1:4	
DECIMALS		ANGLES	DWG. SIZE	
X.XXX ±0.010		±1/2°	DWG. NO.	
X.XX ±0.03			REV	
X.X ±0.1			SHEET 1 OF 1	
A1		94012	1	



2017-178



(01) BASKET LID ASSEMBLY

SECTION A-A

REV	DESCRIPTION OF CHANGE	INITIALS	DATE
1	ADD BELL MEDIUM AND EUROCOPTER AS350 BASKETS, CHANGE TUBES	BUC	MAR 19/08
2	ADD EUROCOPTER EC135, MCDONNELL DOUGLAS MD600N, BELL 206B BASKETS	BUC	DEC 4/08
3	ADD NEW AS350 AND 206L/407 MODELS	BUC	DEC 4/08
4	TITLE BLOCK UPDATED; MODEL LIST REMOVED; ADD ALT. RIVET; ADD NOTE 7	BUC	29/05/2014

## NOTES

1. THIS DRAWING IS AN OPTIONAL CONFIGURATION ADDING A TREAD PLATE STEP TO THE LID. THIS CONFIGURATION MAY BE APPLIED TO ANY OR ALL BAYS OF THE LID. REMAINDER OF LID ASSEMBLY IS TO BE FABRICATED IN ACCORDANCE WITH THE APPLICABLE DRAWINGS.
2. TUBES (ITEM 03) MUST BE WELDED IN PLACE BEFORE MESH IS WELDED ON BOTTOM.
3. REMOVE ALL BURRS AND BREAK SHARP EDGES.
4. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2885C. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
5. WHEN ASSEMBLY IS COMPLETE, FILL ALL VENT HOLES WITH ROSETTE WELD.
6. THOROUGHLY CLEAN AND POWDER COAT BASKET SUB-ASSEMBLY PRIOR TO ASSEMBLY. INSTALL TREAD PLATE AFTER POWDER COATING.
7. WIDTH AND POSITION OF LID STEP MAY BE ADJUSTED TO MATCH LID DOOR INSTALLED IN ACCORDANCE WITH DRAWING 70402 ON ADJOINING BAY OF THE LID.

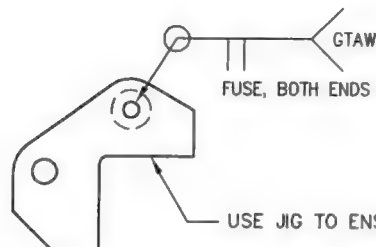
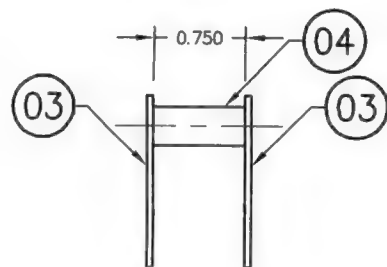
A/R	CR3213-4-02	BLIND RIVET	ALTERNATE: HR3213-4-02			
1	70405-04	04 TREAD PLATE	ALUMINUM	COMMERCIAL	0.063 TREAD PLATE	
2	70405-03	03 TUBE	4130 STEEL COND N	MIL-T-8736	0.5 X 0.035 WALL TUBE	
1	SEE NOTE 1/02	BASKET LID ASSEMBLY				
1	70405-01	01 BASKET LID ASSEMBLY - MODIFIED WITH STEP				
Q1	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	LIST OF MATERIALS					

<b>BASIC CODE</b> REF. MAS 523 C= COUNTERSUNK D= DIMPLE DIA= # OF SHEETS TO BE DIMPLED		<b>DASH NO. FOR DIAMETER</b> N= NIPD. HEAD NEAR SIDE F= NIPD. HEAD FAR SIDE <b>DASH NO. FOR LENGTH</b>		<b>APPROVALS</b> DRAWN: JEFF CLARKE CHECKED: E. BURGON		<b>DATE</b> 21 SEPT 2008	
<b>BASIC CODES:</b> BJ = MS20470AD DB = MS20428AD ARN = CR3213 ARM = CR3212				+ INSTALL NEW RIVET + REMOVE/REPLACE RIVET - EXISTING RIVET			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS: X.XXX ±0.010 X.XX ±0.03 X.X ±0.1 ANGLES: ±1/2°				<b>AERO DESIGN LTD.</b> 8888A MALASPINA ROAD POWELL RIVER, BC, CANADA V8A 0G3 TEL: 866 482 8878 www.aerodesign.ca			
<b>CARGO BASKET LID STEP MODIFICATION</b>				SCALE 1: 1.5 SHEET 1 OF 1			
DIM. SIZE <b>A1</b>		DIM. NO. <b>70405</b>		REV <b>4</b>			

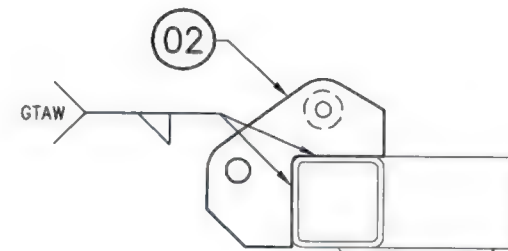
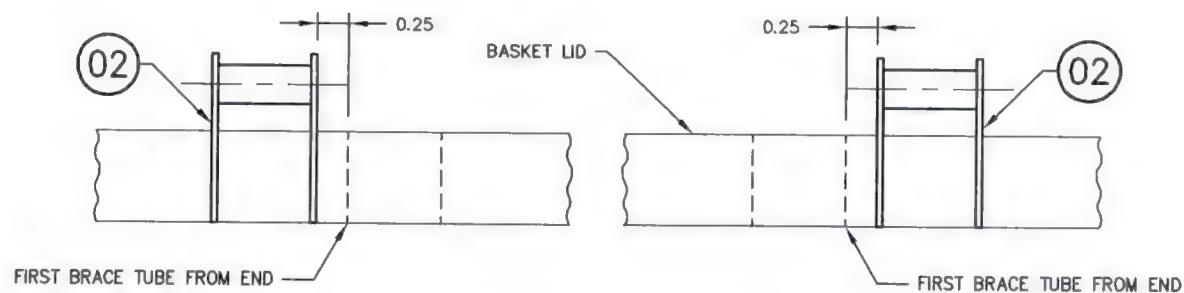
2017-178

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REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE - CREATED FROM 84262 REV. 1	BJC	14/02/2014



## 02 HANDLE BRACKET ASSEMBLY



## 01 LID HANDLE PROVISIONS ASSEMBLY

### NOTES:

1. REMOVE ALL BURRS AND SHARP EDGES.
2. WELDING TO BE COMPLETED BY GTAW METHOD TO AMS2685C USING ROD CONFORMING TO ER30BL OR EQUIVALENT.

1		36275-02	04	SUPPORT
2		36273-01	03	LID BRACKET
	2	84263-02	02	HANDLE BRACKET ASSEMBLY
		84263-01	01	LID HANDLE PROVISIONS ASSY
02	01	PART NO.	ITEM	DESCRIPTION
QTY	QTY	LIST OF MATERIALS		

APPROVALS	DATE
DRAWN: JEFF CLARKE	14 FEB 2014
CHECKED: JASON REKVE	

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES.  
TOLERANCES ON:  
DECIMALS ANGLES  
X.XXX ±0.010 ±1/2°  
X.XX ±0.03  
X.X ±0.1



**AERO DESIGN LTD.**

9888A MALASPINA ROAD  
POWELL RIVER, BC, CANADA, V8A 0G3  
TEL: 804.683.8378 www.aerodesign.ca

HELICOPTER CARGO BASKET  
LID HANDLE PROVISIONS ASSEMBLY

SCALE 1 : 1	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 1	A3	84263	0

2017-178  
AS350/AS355 XL  
X5 X (10)

## CARGO BASKET LID FABRICATION - COMMON

### General

These instructions apply to all cargo basket lid assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

#### **Bell 206L/407** – Right side only

69812, Revision 3 – Standard Low Mounted Basket; Extra-Wide Low Mounted Basket

94612, Revision 0 – Extra-Wide Low Mounted Ski Basket

76612, Revision 0 – High Mounted Ski Basket

#### **Eurocopter AS350/AS355** – left or right

77612, Revision 1 – Short Basket

69812, Revision 3 – Medium Basket (left and right)

78412, Revision 2 – Long Basket

94012, Revision 0 – Extra Large (ski) Basket ← \*

#### **Robinson R44** – left or right

90612, Revision 0 – Standard Basket (left or right)

#### **Bell 206B** – right side only

80212, Revision 0 – Short Basket

80312, Revision 0 – Medium Basket

81112, Revision 0 – Long Basket

#### **Bell 429** – right or left

95912, Revision 0 – Standard Basket

#### **Bell Medium** – left or right

75112, Revision 0 – Standard Basket

95512, Revision 0 – Extra Large (ski) Basket

#### **MD600**

82812, Revision 0 – Standard Basket

### Options

70405, Revision 3 – Walkway

70402, Revision 1 – Lid Door



1-5

# CARGO BASKET LID FABRICATION

Complete  
(initial or SCA #)

Work Order: 2017-178

Date Open: 03 Nov 2017

## 1. Rim Assembly – Basket Lid

- Cut and fit  $\frac{3}{4}$ " x 0.035 material to fit rim jig, 45 degree ends.
  - 1 or 2 lid prop bushing holes in short tube – refer to drawing
- Record material PO on attached material list.
- Remove writing on tubes with acetone and scotch bright.

## 2. Weld Rim Assembly

- Record welding rod PO on attached material list.

## 3. Inspection

- Rim for complete welds

## 4. Frame assembly – Lid

- General
  - Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing)
- Insert rim from step 2 into jig.
- Cut and fit  $\frac{3}{4}$ " x 0.035 material, 21" long, for lid cross members.
- Record material PO on attached material list.
- Remove writing on tubes with acetone and scotch bright.
- Drill vent holes into rim to vent cross members into rim.
- Locate cross members in lid rim. Refer to drawing for spacing of cross members. Clamp cross members with C-clamps to jig.

## 5. Frame assembly – Lid with optional walkway modification

- Fit cross members to rim in accordance with step 4.
- Attach walkway jig with C-clamps. Ensure correct orientation of rim, refer to drawing.
- Cut  $\frac{1}{2}$ " x 0.035 material for walkway stringers to fit between lid cross members. Record material PO on attached material list.
- Drill vent holes into cross members at walkway stringers.
- Align walkway stringers on walkway jig using cleco clamps near both ends of each stringer, and clamp stringer to jig using a C-clamp in the centre.

## 6. Weld frame assembly.

- Record welding rod PO on attached material list.
- Jigs must remain in place for as long as practical during welding.

## 7. Inspection

- Frame assembly for complete welds.

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2017-178

## CARGO BASKET LID FABRICATION


Complete

(initial or SCA #)

### 8. Mesh assembly.

Note: 95912 (Bell 429) does not have mesh. Skip to step 10.

- Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- Cut mesh to size for lid.
- Remove surface rust with scotch-brite.
- Ensure lid is prepared for mesh on the correct side.

Jf. Jf. Jf. Jf. Jf. 

AD	AD	AD	AD	AD
73-04	73-04	73-04	73-04	73-04
05	05	05	05	05

### 9. Weld mesh to frame assembly per drawing.

- General welding requirements for all lids:
  - Every intersection on all edges.
  - First 5 intersections along cross members, then every second intersection.
- MIG weld both short sides.
- Clamp lid over spacer at centre of lid to pre-tension mesh.
  - 3/4" for lids under 76"
  - 1" (check) for lids over 76"
- Weld remainder of mesh as indicated in a.
- Record welding rod PO on attached material list.


AD	AD	AD	AD	AD
73-04	73-04	73-04	73-04	73-04
05	05	05	05	05

### 10. Weld lid components.

- Handle brackets, locate in accordance with drawing.
  - Standard location: 1/4" outside of last cross member on both ends.
  - Record handle bracket WO and welding rod PO on attached material list.
- Lid prop bushing(s).
  - one or two in accordance with drawing.
  - Record lip prop bushing WO and welding rod PO on attached material list.
- Placard bracket. – not installed on 95912 (Bell 429)
  - Locate on cross member to set bracket in centre bay of lid.
  - Record placard bracket WO and welding rod PO on attached material list.

### 11. Clean up

- Grind high spots off mesh welds.
- Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out.
- Straighten lid using frame attached under welding table. Work carefully, avoid excessive force to prevent kinking rim tubes.
- Drill #9 through lid prop bushing(s). De-burr hole(s).
- ~~Drill for lid bumpers using 1/4" (#3) centre drill.~~
  - ~~3 places for lids under 76"~~
  - ~~4 places for lids over 76"~~
- Remove surface rust with scotch-brite pad.

Jf. Jf. Jf. Jf. Jf. 

### 12. Final Inspection

To be completed by a different person than the previous steps.

- Basket lid assembly for complete welds, and required minimum mesh weld locations.
- Material lists complete.
- Overall condition and conformity to drawing(s).

AD	AD	AD	AD	AD
73-04	73-04	73-04	73-04	73-04
02	02	02	02	02

2017-178

## CARGO BASKET LID FABRICATION

AD 73-04 02 AD 73-04 02 AD 73-04 02 AD 73-04 02 Complete (initial or SCA #)

### 13. Powder Coating

- a. Parts are to be powder coated white in accordance with commercial practices.
- b. Record powder coating PO.
- c. Inspect powder coating on receiving.
- d. Tag lid assembly and place into stock in preparation for assembly.



AS350 / AS355  
Ski Basket  
X5 X(10)

## CARGO BASKET LID FABRICATION - COMMON

### General

These instructions apply to all cargo basket lid assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

#### **Bell 206L/407** – Right side only

69812, Revision 3 – Standard Low Mounted Basket; Extra-Wide Low Mounted Basket

94612, Revision 0 – Extra-Wide Low Mounted Ski Basket

76612, Revision 0 – High Mounted Ski Basket

#### **Eurocopter AS350/AS355** – left or right

77612, Revision 1 – Short Basket

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78412, Revision 2 – Long Basket

94012, Revision 0 – Extra Large (ski) Basket ← \*

#### **Robinson R44** – left or right

90612, Revision 0 – Standard Basket (left or right)

#### **Bell 206B** – right side only

80212, Revision 0 – Short Basket

80312, Revision 0 – Medium Basket

81112, Revision 0 – Long Basket

#### **Bell 429** – right or left

95912, Revision 0 – Standard Basket

#### **Bell Medium** – left or right

75112, Revision 0 – Standard Basket

95512, Revision 0 – Extra Large (ski) Basket

#### **MD600**

82812, Revision 0 – Standard Basket

### Options

70405, Revision 3 – Walkway

70402, Revision 1 – Lid Door

6-10

## CARGO BASKET LID FABRICATION

Complete  
(initial or SCA #)Work Order: 2017-178Date Open: 03 Nov. 2017

## 1. Rim Assembly – Basket Lid

- Cut and fit  $\frac{3}{4}$ " x 0.035 material to fit rim jig, 45 degree ends.
  - 1 or 2 lid prop bushing holes in short tube – refer to drawing
- Record material PO on attached material list.
- Remove writing on tubes with acetone and scotch bright.

AD	AD	AD	AD	AD
73-04	73-04	73-04	73-04	73-04
05	05	05	05	05

## 2. Weld Rim Assembly

- Record welding rod PO on attached material list.

AD	AD	AD	AD	AD
73-04	73-04	73-04	73-04	73-04
05	05	05	05	05

## 3. Inspection

- Rim for complete welds

AD	AD	AD	AD	AD
73-04	73-04	73-04	73-04	73-04
05	05	05	05	05

## 4. Frame assembly – Lid

- General

- Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing)

- Insert rim from step 2 into jig.
- Cut and fit  $\frac{3}{4}$ " x 0.035 material, 21" long, for lid cross members.
- Record material PO on attached material list.
- Remove writing on tubes with acetone and scotch bright.
- Drill vent holes into rim to vent cross members into rim.
- Locate cross members in lid rim. Refer to drawing for spacing of cross members. Clamp cross members with C-clamps to jig.

AD	AD	AD	AD	AD
73-04	73-04	73-04	73-04	73-04
05	05	05	05	05

## 5. Frame assembly – Lid with optional walkway modification

- Fit cross members to rim in accordance with step 4.
- Attach walkway jig with C-clamps. Ensure correct orientation of rim, refer to drawing.
- Cut  $\frac{1}{2}$ " x 0.035 material for walkway stringers to fit between lid cross members. Record material PO on attached material list.
- Drill vent holes into cross members at walkway stringers.
- Align walkway stringers on walkway jig using cleco clamps near both ends of each stringer, and clamp stringer to jig using a C-clamp in the centre.

AD	AD	AD	AD	AD
73-04	73-04	73-04	73-04	73-04
05	05	05	05	05

## 6. Weld frame assembly.

- Record welding rod PO on attached material list.
- Jigs must remain in place for as long as practical during welding.

AD	AD	AD	AD	AD
73-04	73-04	73-04	73-04	73-04
05	05	05	05	05

## 7. Inspection

- Frame assembly for complete welds.

AD	AD	AD	AD	AD
73-04	73-04	73-04	73-04	73-04
05	05	05	05	05

## CARGO BASKET LID FABRICATION

Complete

(initial or SCA #)

### 8. Mesh assembly.

Note: 95912 (Bell 429) does not have mesh. Skip to step 10.

- Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- Cut mesh to size for lid.
- Remove surface rust with scotch-brite.
- Ensure lid is prepared for mesh on the correct side.

Jf. Jf. Jf. Jf. Jf. OK

AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05

### 9. Weld mesh to frame assembly per drawing.

- General welding requirements for all lids:
  - Every intersection on all edges.
  - First 5 intersections along cross members, then every second intersection.
- MIG weld both short sides.
- Clamp lid over spacer at centre of lid to pre-tension mesh.
  - $\frac{3}{4}$ " for lids under 76"
  - 1" (check) for lids over 76"
- Weld remainder of mesh as indicated in a.
- Record welding rod PO on attached material list.

AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05

### 10. Weld lid components.

- Handle brackets, locate in accordance with drawing.
  - Standard location:  $\frac{1}{4}$ " outside of last cross member on both ends.
  - Record handle bracket WO and welding rod PO on attached material list.
- Lid prop bushing(s).
  - one or two in accordance with drawing.
  - Record lip prop bushing WO and welding rod PO on attached material list.
- Placard bracket. – not installed on 95912 (Bell 429)
  - Locate on cross member to set bracket in centre bay of lid.
  - Record placard bracket WO and welding rod PO on attached material list.

### 11. Clean up

- Grind high spots off mesh welds.
- Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out.
- Straighten lid using frame attached under welding table. Work carefully, avoid excessive force to prevent kinking rim tubes.
- Drill #9 through lid prop bushing(s). De-burr hole(s).
- ~~Drill for lid bumpers using  $\frac{1}{4}$ " (#3) centre drill.~~
  - ~~3 places for lids under 76"~~
  - ~~4 places for lids over 76"~~
- Remove surface rust with scotch-brite pad.

Jf. Jf. Jf. Jf. Jf. OK

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29 JAN 2018

### 12. Final Inspection

- To be completed by a different person than the previous steps.
- Basket lid assembly for complete welds, and required minimum mesh weld locations.
  - Material lists complete.
  - Overall condition and conformity to drawing(s).



CARGO BASKET LID FABRICATION

AD  
73-04  
02

AD  
73-04  
02

AD  
73-04  
02

Complete  
(initial or SCA #)

13. Powder Coating

- a. Parts are to be powder coated white in accordance with commercial practices.
- b. Record powder coating PO.
- c. Inspect powder coating on receiving.
- d. Tag lid assembly and place into stock in preparation for assembly.

AD  
73-04  
02

AD  
73-04  
02

Work Order: 2017-178Date Opened: Nov 2017Material Tracking Sheet  
Eurocopter AS350 / AS355  
Extra Large Lid Fabrication

1 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	<u>10</u>	94012	<b>94012-01</b>	<b>Lid Assembly</b>		
<b>Step 1</b>				<i>Rim Assembly</i>		
	. 2		--	3/4" Tube - Long Rim (97")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>17091</u>
	. 2		--	3/4" Tube - Short Rim (22.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>17091/2017-153</u>
<b>Step 2</b>				<i>Weld Rim Assembly</i>		
	. A/R			Welding Rod	ER70S-2 TIG Rod	<u>16078</u>
<b>Step 3</b>				<i>Inspection - Rim</i>	None	
<b>Step 4</b>				<i>Frame Assembly</i>		
	. 4		--	3/4" Tube - Cross Member (21")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>17091/17055</u>
<b>Step 5</b>		70405		<i>Option: Frame Assembly - with walkway</i>		
	. 10		--	1/2" Tube - walkway	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>2017-83/17082/17038</u>
<b>Step 6</b>				<i>Weld Frame Assembly</i>		<u>17093/</u>
	. A/R			Welding Rod	ER70S-2 TIG Rod	<u>16078</u>
<b>Step 7</b>				<i>Inspection - Frame Assembly</i>	None	
<b>Step 8</b>				<i>Mesh Assembly</i>		
	. 1		--	Mesh (lid - 96" x 22")	3/4-16F Expanded Mild Steel sheet	<u>170 17107</u>
<b>Step 9</b>				<i>Weld Mesh</i>		<u>35.</u>
	. A/R			Welding Rod	ER70S-6 MIG Wire	<u>16078</u>

Work Order: 2017-178Date Opened: Nov 2017

Material Tracking Sheet  
Eurocopter AS350 / AS355  
Extra Large Lid Fabrication

2 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
<b>Step 10</b>				<i>Weld Lid Components</i>		
	1	84262	84262-01	Upper Handle Bracket Assembly		2017-201
	4		36273-01	Lid Bracket	321 Stainless, 0.050 Sheet	
	2		36275-02	Support	304 Stainless, 5/16" Rod	
	A/R			Welding Rod	ER308L TIG Rod	17066
	2		49216-01	Spacer (Lid prop)	304 Stainless, 1/2" Dia.	2015-84
	A/R			Welding Rod	ER308L TIG Rod	17066
	1		36204-10	Placard Bracket	1018 Steel, 0.035" Sheet	2016-119
	A/R			Welding Rod	ER70S-2 TIG Rod	16078
<b>Step 11</b>				<i>Clean Up</i>		
<b>Step 12</b>				<i>Inspection - Final Assembly</i>		
<b>Step 13</b>				Powder Coating		17110 17117 17118 18005 18008 (2) (2) (2) (2) (2)